



The Carolina DX Association

THE PILEUP

WEEKLY DX NET
DX INFO REPEATERS

WEDNESDAY EVENING 8:30 PM
147.36 BOONE
147.18 CHARLOTTE

December 1987

Scott Douglass, K2SD, Editor

- CURRENT DX ACTIVITY -

Thanks once again to QRZ DX, the ARRL DX Bulletins, and to N4ZC for his reading of the bulletins and passing on his own DX tidbits....

3B8CF was reported on 7006 at 0200Z. 3X0a on 21028 at 1630Z. 4S7 - DK12N and DJ0CP will be operating portable 4S7 Dec 28 thru Jan 28. Look for them on CW and SSB, mainly on 10-20. 4U/DH6XY (Golan Heights, i.e. Syria) on 21043 at 1400Z, also 7002 and 7007 at 0255-0330Z.

5H1HK will be active by JE3MAS for two years. 6C will be a special prefix in Syria during December. 9H1EL on 80 and 75 around 2300Z. 9NSYDY will be a special operation by the Japan UNICEF ham club and will operate 40-10 CW/SSB Dec 21 thru Dec 29 (try 14188, 21238, 28448, 7008, 14028, 21028, and 28028). 9Q5NH was on 3506 at 0400Z.

9V1XE will be operated by VK3DXI for 2 to 3 months, 160-10, mostly CW. A61AB on 14165 at 1130Z. BV2DA was heard on 21004 at 0005Z. FH3BH on 7001 at 0400Z. VK0HI on 14215 at 0415Z. FR5DX was on 10 meters - 28525 at 1400Z. FT5ZB on Amsterdam Island is now active and was worked on 14205 at 0530Z.

HY3SJ on 21293 at 1445Z. Look for KX6DC to be active for the next two years. LO8WW is using the new LO prefix for LU-land. P4 - Aruba will now count as a separate DXCC country - see elsewhere in this issue. PY0OFF - Fernando de Noronha - on 14300 at 1100Z - sometimes it pays to look higher in the 20 meter band.

RW3DR/VE8 is one of the Russians participating in Skitrek. S0RASD has been on 75 with EA2JG. SU/PABAXU on 3795 at 0209Z. T77C reported on 21023 at 1300-1530Z. TA3D on 7005 at 0255Z. TRBJLD on 3509 at 0430Z. TT8BE was rumored to show up on a 14183 net. TZ6KL on 14245 or higher.

Look for these special Canadian prefixes during January and February: CJ1, CJ2, VX1Q, VX20, VX3, VX4, VX5, VX6, VX7, CH1. This is to celebrate the Winter Olympics. VI88 will be a special Australian prefix honoring their Bicentennial during 1988.

VK0HI (Heard Island) has been showing up on 14215. VK9YD will operate from Cocos-Keeling starting December 22 for one week. VS6DO on 3507 at 1130-1330Z. XE1ARB/XF4 has been on 14236, and another operation is rumored for February. XU1SS on 14165 at 1230Z. ZL9 (Auckland) planned for February 88 by ZL1AMO and others. ZS8 (Marion) is rumored for a February or March operation.

DXCC UPDATE

Aruba added to countries list. The ARRL awards committee has voted unanimously to accept the recommendation of the DX advisory committee to add Aruba, P4, to the ARRL DXCC countries list. Aruba credit will be given for contacts dated January 1, 1986, and after. Do not submit cards for Aruba credit before April 1, 1988. See February QST for details.

\$\$\$\$ 1988 DUES ARE NOW DUE \$\$\$
Please submit \$15.00 CDXA dues to Bill Jennings, W4UNP, 630 Whitepine Drive, Catawba, SC 29704.

NEW CDXA OFFICER ELECTED

Ken ~~Boyle~~ WA4UNZ, was elected CDXA President during the December Club meeting. Ken was the choice of the nominating committee, and after much pressure by the committee Ken agreed to take the job! All of us who know WA4UNZ realize that Ken's commitment to the CDXA and Ham Radio is intense, and we are very fortunate to have him take the helm for 1988.

The remainder of the officers have agreed to remain in their posts for 1988. Since there were no nominations from the floor, they will indeed continue. WA4UUP, Skip Richardson, is Vice President, W4UNP, Bill Jennings, will still be handling the Treasurer's chores, and Roger Burt, N4ZC, remains as Net Manager. K2SD will continue to find creative ways to write things like "ZA1AA on 14001 at 0225Z".

Special thanks is due to Gary Dixon, K4MQG, who had to step down as President. Gary has served the CDXA in many ways, both as an officer and member - during his terms as president the CDXA has grown in many ways, and Gary has been instrumental in this growth. THANKS GARY, from all of us.

CDXA RECEIVES CONTRIBUTION

The CDXA has received a contribution of \$500 from the Mecklenburg Amateur Radio Society. This is for the many contributions our club has made to the Charlotte Hamfest for many years - and for our members support of the W4/K4/A4/N4 QSL bureau. Many thanks to MARS, and we look forward to the same level of cooperation between our clubs in the years to come.

QSLS By W4MPY

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CDXA AND PACKET

by K2SD

The December club meeting featured a talk by Bill Taylor, KD4IL, and Ken Dresser, KK4L, on packet radio and its possible use by the CDXA to pass DX information between members, and to exchange DX information with other DX clubs in the Southeast. The following is a summary of that talk, as well as some additional information about packet radio that CDXA members may need in order to appreciate why packet is such an attractive mode for this application.

To get on the air with packet, three things are needed: (1) a 2-meter FM radio (with antenna) capable of operating in the 145-146 portion of the 2-meter band, (2) a TERMINAL NODE CONTROLLER (TNC for short), and (3) a Terminal (Keyboard/Display and/or Printer). A typical packet set-up looks like this:



The terminal is typically a personal computer, but can also be a simple keyboard/display with no "smarts" inside (i.e., a "dumb terminal"), or just a printer (in which case you could only receive packet). In today's market, it is possible to pick up a small used PC at a very reasonable price.

TNCs are available from many manufacturers - some of the more expensive also let you work CW, RTTY, AMTOR, and even WEFAX (weather facsimile). Plain TNCs (all you need for our purposes) start at under \$100.

Setting up a packet station is not difficult, and there are many hams in our area who are willing and able to assist if necessary. "But", you ask, "Why Bother - what's so great about packet?" One answer is that packet provides an ERROR-FREE mode of communication. The TNCs contain

software which controls the flow of information between stations, and checks data received to insure that it was received error-free. If the data is not received correctly, the receiving TNC asks for a retransmission from the sending TNC, and this continues for a predetermined number of retries or until the data is received correctly. Trust me, it works!

Another nice thing about packet is that it allows two stations to connect to one another and exchange information, and not see any of the other traffic sharing the SAME FREQUENCY. Many packet station can (and do) share the same simplex frequency, which provides a very efficient use of our spectrum allocation.

The final item to cover in this mini-tutorial is the concept of a DIGIPEATER. This is the real key to the success of packet radio. Here's an example: K2SD would like to connect (establish a packet QSO) with WA4UNZ. However, they live too far apart for direct communication on 2-meters. They can both hear KD4IL quite nicely, however, so we connect VIA KD4IL. KD4IL's station acts as a Digipeater and passes packets of data back and forth between the two stations. The nice thing is that KD4IL probably does not even know he is doing this - unless he looks up and sees his 2-meter radio and TNC flashing on and off. This concept can be extended to many stations acting as digipeaters between two end stations, and is possible since any TNC may act as a digipeater - it's built into the TNC's software.

Digipeating is done in SIMPLEX mode. Packets are received and retransmitted on the same frequency, and this keeps the system very simple, as shown in the above diagram. There is no need for two antennas, duplexers, control links, etc.

A group of DXers in Atlanta have implemented a special type of packet

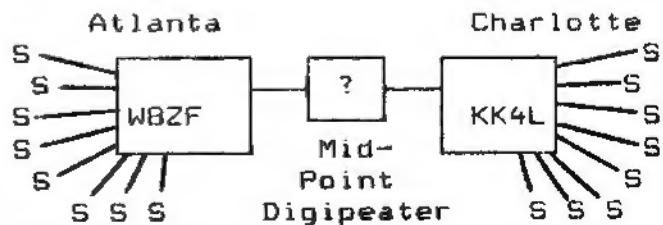
which allows many DXers to connect (at the same time, if they wish) to a central control stations computer. This computer contains a data base, which includes (among other things) a LIST OF ALL DX ACTIVITY REPORTED over a fairly long period of time! One of the nice things about data bases (a computer buzzword for a collection of data) is that it can be interrogated for specific parts of its data - for example, one could ask the data base for a list of all 20-meter activity for the last two days, or perhaps all reported activity by ZL1AMO for the past week... the possibilities are fantastic!

The data base is "fed" by the members who connect to the central station... whenever they hear some good DX, they type a brief message on their terminal, and a number of things immediately happen:

- 1) The DX information is added to the data base.
- 2) All connected members are sent a message showing the DX item.
- 3) Other non-connected station who are monitoring the packet frequency will also see the item.

Item 3 is possible since packet activity can be monitored by anyone; just as all other forms of Amateur Radio allow eavesdropping, so does packet. However, as mentioned before, stations in connect mode see only traffic between themselves, so an illusion of privacy is possible.

The next step in the evolution of packet for DXers is to have a similar node (central station) in the Charlotte area, and to establish a connection between the Charlotte node and the Atlanta node. The system will look something like this:



First experiments are already under way! KK4L, who is extremely active in all forms of packet radio, has offered to help establish such a system. First attempts to receive transmissions from the Atlanta area have shown that it will be necessary to establish a mid-point digipeater in order to assure 24-hour capability. K4MQG is working on this portion of the system, and some progress should be seen in the near future.

Our target is a system where local Charlotte DXers will exchange DX information, and this information will automatically be routed to the Atlanta node where it will be sent out and saved. Conversely, DX called out in the Atlanta area will come into our node for our use - both areas will benefit.

In addition, the central nodes will have other software of use to DXers - beam heading programs, propagation predictions, text of DX bulletins, and facilities to leave messages for friends and

receive messages from others. The possibilities are endless.

You have all heard about packet for a few years now - here's a chance to learn and use this latest advance in Amateur communications, and, at the same time, enjoy our first love - DX.

RANDOM COMMENTS

This completes issue number 12 of my turn at producing this letter, and special thanks go to Roger and Joyce Burt - Roger for sticking the mailing labels and stamps - and Joyce for doing the actual copying. Both have resigned from these duties, so next time you see them give them a big "thanks" for their efforts this past year.

There have not been many submissions lately from members - I really did not take this job as an exercise in creative writing - so please keep your eyes open for newsletter material - this may become a 1-pager before long!

73 de K2SD

THE CAROLINA DX ASSOCIATION

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